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10/553,299	10/14/2005	Detlef Alfons Buechner	3482	1888

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EXAMINER

BANH, DAVID H

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/553,299	Applicant(s) BUECHNER, DETLEF ALFONS	
	Examiner DAVID BANH	Art Unit 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4, 6-18, 21, 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Faulhammer et al. (US PG Pub 2003/0191544) in view of Sorrells et al. (US PG Pub 2003/0186670).

For claim 1: Faulhammer et al. teaches a drive device (page 6, paragraph 79, master drive **3**), having a virtual leading axel for presetting a desired angular position of a drive (page 6, paragraph 81, central control unit **5**, also paragraph 82). The leading axel is connected to a circuit (page 6, paragraph 81, transmission elements **8**) which is configured to be able to convert datum for the angular position of the leading axel into a pulse train in the form of output signals (page 6, paragraph 81, transmission to slave drives **4**). Faulhammer does not teach that the circuit is configured to be parameterized with regard to a number of pulses per rotation. However, Sorrells et al. teaches converting a pulse train into a frequency modulated signal, which is parameterized by its frequency or number of pulses. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modulate the signal and

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parameterize it with regard to a number of pulses per rotation so that the control of a later drive can easily process the data. While the Faulhammer teaches only a single virtual leading axel **5** for presetting the desired angular position of a drive, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide at least a second virtual leading axel **5** for presetting the desired angular position of a drive in case of any failure in the first virtual axel which would prevent the drive from being properly set. Finally, it is clear that Faulhammer shows the circuit **8** assigned to the present virtual axel **5**. Particularly, MPEP Section 2144 Part VI, B, holds duplication of parts to have no patentable significance unless a new or unexpected result is produced.

For claim 2: Faulhammer et al. teaches providing the pulse train into the drive of a subassembly (Figure 1, transmission element **8**, control and drive **6b** and **4**). It would also be obvious to one of ordinary skill in the art at the time the invention was made to couple the drive to both virtual leading axels to allow the virtual leading axels to affect the drive and preset the angular position.

For claim 3: Faulhammer et al. teaches that the circuit includes a number of subcircuits (Figure 1, numerous slave drives are connected to the master), and that these are able to generate a number of pulse trains at a number of outputs (transmission element **8**, splits into 3 circuits carrying the output pulse train with outputs at each control **6b** and slave drive **4**).

For claim 4: Sorrells et al. teaches that the parameters of a circuit are adjustable (Figures 1-10 show amplitude, frequency and phase being adjustable, page 2, paragraphs 43-53).

For claim 6: Faulhammer et al. teaches that the circuit receives the axel position from a drive control unit (Figure 1, control **6a**, page 6, paragraph 81, lines 1-2).

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For claim 7: Faulhammer et al. teaches that the circuit (transmission element, **8**), is a client to a network (control unit and command distributor **7** and **6a**) and receives the signal at its input.

For claim 8: Faulhammer et al. teaches a drive control unit that presets the leading axle position (controls **6a** and **7**), which has at least one circuit (transmission element **8**).

For claim 9: It would have been obvious to one of ordinary skill in the art to provide a second circuit for converting the chronologically changing datum into a pulse train so as to speed up the process of conversion by doubling the number of elements performing the action.

For claim 10 and 14-15: Sorrells et al. teaches that it is possible to parameterize the output with respect to frequency or the number of pulses (Figures 1-10).

For claim 11: Faulhammer et al. shows a first circuit (see Figure 1, connection between master drive **3** and control **6a**, connected to a second circuit, within **6a** or alternatively **8** the transmission elements, that is able to convert the first pulse train into a new pulse output signal.

For claim 12: Faulhammer et al. shows that the control **6a** is connected to a number of subcircuits which have a number of pulse trains (see Figure 1, transmission elements **8** and set point generator **9**).

For claim 13 and 16: Sorrells et al. teaches that the parameters of a circuit are adjustable (Figures 1-10 show amplitude, frequency and phase being adjustable, page 2, paragraphs 43-53).

For claim 17: Sorrells et al. teaches that the output of the circuit may be digital (page 3, paragraph 61).

For claim 18: Sorrells et al. teaches that the output of the circuit may be analog (page 3, paragraph 62).

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For claim 21: Faulhammer et al. teaches that the leading axel is preset by a drive control unit (see Figure 1, 7, page 6 paragraphs 81-82)

For claim 22: The drive control unit is an independent master (see Figure 1, 7).

For claim 24: Faulhammer et al. teaches the method for controlling a subassembly in a printing drive having at least one virtual axle for presetting a desired angular position of a drive (page 6, paragraph 81, central control unit **5**, also paragraph 82) wherein at least one circuit (page 6, paragraph 81, transmission elements **8**) converts the chronologically changing datum for the angular position into a pulse train and supplies it as output signals to a subassembly. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a second axle for backing up the first axle in setting the initial position of the drive. As a result, both second and first virtual axels would be connected to the circuit **8** as shown in Figure 1. Furthermore, Fig. 1 shows that the circuit **8** is connected and assigned to at least one of the at least two virtual leading axels **5**.

4. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Faulhammer et al. (US PG Pub 2003/0191544) and Sorrells et al. (US PG Pub 2003/0186670) as applied to claim 10 above, and further in view of Sferrazza et al. (US Patent 5,678,030).

The combination of Faulhammer et al. and Sorrells et al. teach all of the limitations of claim 5 as found in claim 3 above. The combination does not teach that the circuit is an emulator circuit. However, Sferrazza et al. teaches an emulator circuit for emulating operation of a computing system. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use an emulator circuit as its computing operation is adapted to changing the shape of the output signal.

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5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Faulhammer et al. (US PG Pub 2003/0191544) and Sorrells et al. (US PG Pub 2003/0186670) as applied to claim 10 above, and further in view of Sommer et al. (US Patent 3,851,742).

The combination of Faulhammer et al. and Sorrells et al. teaches all of the limitations of claim 23 as found in claim 10 above. The combination does not teach that the output signal has a set of correlated pulse trains. However, Sommer teaches an output signal with a set of correlated pulse trains (column 15, claim 11, lines 45-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use correlated pulse trains to control drive speed as taught by Sommer.

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Faulhammer et al. (US PG Pub 2003/0191544) and Sorrells et al. (US PG Pub 2003/0186670) as applied to claim 4 above, and further in view of Siegrist et al. (US Patent 5,792,483).

The combination of Faulhammer et al. and Sorrells et al. teaches all of the limitations of claim 20 as found in claim 4 above. The combination does not teach that the circuit is detachably connected to a computing unit in order to adjust the parameters. However, Siegrist et al. teaches a detachably connected unit (column 5, lines 53-60). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a detachably connected computing unit so that circuit can be hooked up to different and additional computing units when necessary.

7. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Faulhammer et al. (US PG Pub 2003/0191544) and Sorrells et al. (US PG Pub 2003/0186670) as applied to claim 10 above, and further in view of Tokiwa (US PG Pub 2001/0018872).

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The combination of Faulhammer et al. and Sorrells et al. teaches all of the limitations of claim 23 as found in claim 10 above. The combination does not teach that the drive control unit is a drive control unit of a folding unit. However, Tokiwa teaches a drive control unit that is a drive control unit of a folding unit (page 1, paragraph 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the drive control taught by Faulhammer et al. and Sorrells et al. to control a motor for a folding unit as the drive control can be used to control any element of a press.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID BANH whose telephone number is (571)270-3851. The examiner can normally be reached on M-Th 9:30AM-8PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571)272-2258. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DHB
January 22, 2009

/Daniel J. Colilla/
Primary Examiner
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